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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

M1047/0064

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June 16, 2009

James Lekas  
Lexco Inc  
582 N Vernal Ave  
Vernal, Utah 84078

Subject: Initial Review of Amended Notice of Intention to Commence Large Mining Operations, Lexco, Cottonwood Mine, M0470064, Task 2109, Uintah County, Utah

Dear Mr. Lekas:

On November 21, 2007, the Division received from you an amendment to the referenced mine plan. The Division initially completed its review in February 2008 and attempted to coordinate the review with the Bureau of Land Management. The review was delayed for various reasons, and the Bureau of Land Management has now issued their approval.

The attached comments need to be adequately addressed before the Division gives its final approval; however, because of our delay in sending you this review, the Division will not prohibit development of the mine sites as long as an adequate reclamation surety has been submitted and as long as operation requirements in R647-4-107 are met while the mines are being built. This includes salvaging soil as described in your current plan, protecting drainages, etc.

As soon as possible, please supply the information required under rule R647-4-113 in this review. The Division has a memorandum of understanding with the Bureau of Land Management allowing them to hold the surety.

Although we realize this is an amendment to an existing approved plan, there are some items that need to be corrected and others that were not adequately addressed in the original plan.

If you have questions about the comments in this review, please contact the appropriate staff member, Leslie Heppler at (801) 538-5257, Tom Munson at (801) 538-5321, or Paul Baker at (801) 538-5261. Please coordinate the review with the lead, Leslie Heppler. Thank you for your cooperation.

Sincerely,

Paul B. Baker  
Minerals Program Manager

PBB:lah:vs

Attachment: Review

cc: [Stan\\_Perkes@BLM.gov](mailto:Stan_Perkes@BLM.gov) & [Jerry\\_Kenczka@BLM.gov](mailto:Jerry_Kenczka@BLM.gov)

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# REVIEW OF AMENDED NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

Lexco  
Cottonwood Mine  
M0470064  
June 16, 2009

## R647-4-105 - Maps, Drawings & Photographs

### 105.2 Surface facilities map

Please include a drawing of a typical mine site showing locations of the various facilities, such as the shafts, ore bin, headframe, hoist house, fuel storage, topsoil piles, waste storage or disposal areas, and drainage control structures. As discussed in the next paragraph and in Section R647-4-108 of this review, please show the locations of previous exploration activity. Any utilities, power lines, oil and gas wells, pipelines, and similar structures within 500 feet of the operations need to be shown on a map. If they are not in the area, please include a statement to this effect. Previously disturbed areas within the area proposed for disturbance need to be shown. Once again, if none of the areas were previously disturbed, please make this statement. (PBB)

Page 7 discusses exploration that was done in about 2001. There were apparently several trenches and drill holes, and the locations of these disturbances need to be shown on a map unless they are reclaimed to the point they can be released. If they are fully reclaimed, including revegetation, and there will be no further disturbances from this exploration, the Division suggests you apply for release. (PBB)

### 105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

**Figure 6 - on end view and elevation view: Please label minimum thickness of cover as per verbiage in text on page 9; also include on cross section b and c. (LAH)**

Include schematic of drainage crossings of the existing access road to be upgraded to a haul road. (TM)

## R647-4-106 - Operation Plan

### 106.2 Type of operations conducted, mining method, processing etc.

According to Figure 3, the roads between the mines will cross drainages at three points, and the escapeway between the #3 and the #6 Shafts is in the bottom of a drainage. Will culverts be used for these crossings? If so, please show them on the map, but if not, please describe how the channels will be protected. Should the escapeway be re-located to be out of the channel? (PBB)

### 106.3 Estimated acreages disturbed, reclaimed, annually.

The proposal includes acreage figures for the proposed sites and roads, but it needs to include total figures for the entire site. Once approved, the Division will consider this document to be the plan for the mine site rather than a proposal for expansion, so it needs to be able to stand alone. For example, page 5 says the total new disturbance for roads is 1.1 acres. What is the total disturbance from roads? The information on previously-approved roads is in the current plan, but that plan will be superseded. (PBB)

- 106.4 Nature of materials mined, waste and estimated tonnages  
Please show about how many tons of ore will be mined annually. If waste is produced, the plan needs to show how much and how and where it will be disposed of. The plan would also need to discuss the nature of the waste material and whether there is a potential for adversely affecting surface or ground water or the revegetation potential. (PBB)

Look to see if the plan says waste will be put down the hole

- 106.5 Existing soil types, location, amount  
The plan needs to contain a description of existing soil types, including the location and extent of topsoil or suitable plant growth material. The Environmental Assessment contains limited (though adequate) information about area soils, and the Division suggests including this information as an appendix to satisfy this requirement. (PBB)
- 106.6 Plan for protecting & redepositing soils  
Page 4 says vegetation will be cleared for a 25-foot radius around the escape openings. Rather than just clearing brush, soil should be salvaged in disturbed areas as described on page 6, and the brush could be stockpiled with the soil for later use in revegetation. (PBB)
- 106.7 Existing vegetation - species and amount  
The plan needs to contain a description of existing vegetation communities and cover levels sufficient to establish revegetation success standards. (PBB)
- 106.10 Amount of material to be moved  
Please provide a calculation of the amount of topsoil that has been and will be stockpiled. (PBB)

#### **R647-4-108 - Hole Plugging Requirements**

Please include information about the exploration discussed on page 7 of the plan. Have the drill holes been plugged, and, if so, what methods were used? See also the requirements under R647-4-105.2 of this review. (PBB)

#### **R647-4-109 - Impact Assessment**

- 109.1 Impacts to surface & groundwater systems  
Three to five gallons per minute of water is discharged to a dry wash under NPDES permit 0025259. Please include a copy of the permit as an appendix. (PBB)
- On page 10 is a statement that pollution of surface waters will be prevented as described in paragraph 8 on page 8. Page 8 does not contain a description of water pollution control/prevention methods. Should this reference be to Section 8 on page 9? (PBB)
- 109.2 Impacts to threatened & endangered wildlife/habitat  
The plan needs to mention possible effects to the threatened and endangered fish of the Colorado River. Water use is considered to affect these fish. Although the amount of inflow to the mine and discharge to the surface is small (4.6-7.7 acre-feet per year), it is still considered an effect. The Fish and Wildlife Service normally does not require mitigation when the amount of water use is less than 100 acre-feet per year. (PBB)

- 109.4 Slope stability, erosion control, air quality (fugitive dust control plan), safety  
Air quality is discussed on page 9. Is an air quality permit required? If so, a copy should be included as an appendix. (PBB)

**R647-4-110 - Reclamation Plan**

- 110.1 Current & post mining land use  
Please state the post mining land use. (PBB)
- 110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed  
The plan needs to include a description, including both a narrative and drawings, showing how the shafts and escapeways will be reclaimed. Will the concrete seals, as described on page 11, be reinforced? How will they be placed and anchored? How deeply will the shaft collars be covered with soil? It appears from Figure 6 that some parts of the shaft collars protrude from the ground. Will portions of the collars be broken up? If so, please discuss disposal of the waste. The Division understands the plan will likely change in accordance with BLM requirements before the sites are reclaimed, and the plan can be amended at that time. (PBB)

Please clearly show which roads will and will not be reclaimed and to what extent. Please confirm that any roads to be left are public roads. If that is not correct, the plan needs to discuss the postmining land uses of roads to be left and whether the land managing agency has approved retaining any roads. (PBB)

- 110.4 Description or treatment/disposition of deleterious or acid forming material  
As discussed in Section 106.4 of this review, the plan needs to describe the nature of waste material and how it will be disposed of in final reclamation. (PBB)
- 110.5 Revegetation planting program  
The Division, after consulting with the Bureau of Land Management, recommends the following seed mix:

Species	Pounds Pure Live Seed/Acre
Vavilov or Vavilov II Siberian Wheatgrass	3
Bottlebrush Squirreltail	2
Western Wheatgrass	1
Wyoming Big Sage	0.5
Shadscale	2
Fourwing Saltbush	2
Forage Kochia	0.1

The Division recommends leaving the surface very rough and broadcasting the seed. If most of the seed is to be drilled, forage kochia and sagebrush should be broadcast seeded. As with the shaft closure plan, the Division understands the BLM may have you modify the plan at the time of reclamation. If this occurs, the Division's plan can be amended. (PBB)

**R647-4-113 - Surety**

The Division understands the Bureau of Land Management normally calculates the reclamation surety, and this calculation should be included in the plan. If the surety is calculated by another party, please include those numbers in the plan. (PBB)

If the site is to be bonded in increments, i.e. if the bond for disturbance of all proposed facilities is not to be submitted until some future date, please make this clear in the text and on a map. The map would need to show the sequence of facilities installation with approximate dates. (PBB)